HURRICANE INFORMATION AND PREPAREDNESS TIPS

Hurricanes don't start off as full-blown monsters. They typically follow a growth cycle which has them starting off as a:

TROPICAL DISTURBANCE - A moving area of thunderstorms that maintains its identity for 24 hours or more.

Growing into a:

TROPICAL DEPRESSION - An organized system of clouds and thunderstorms with a defined circulation and maximum sustained winds of 38 miles per hour or less.

Growing still further into a:

TROPICAL STORM - An organized system of strong thunderstorms with a defined circulation and maximum sustained winds of 39 to 73 miles per hour.

Reaching its full potential as a:

HURRICANE - Tropical cyclones in which winds reach sustained speeds of 74 miles per hour or more, and blow around a relatively calm center - the eye of the hurricane. Stated very simply, hurricanes are giant whirlwinds in which air moves in a large tightening spiral around a center of extreme low pressure, reaching maximum velocity in a circular band extending 20 or 30 miles from the rim of the eye. The circulation is counterclockwise in the Northern Hemisphere, and clockwise in the Southern Hemisphere. Near the center, hurricane winds may gust to more than 200 miles per hour. The entire storm dominates the ocean surface and lower atmosphere over tens of thousands of square miles.

The eye, like the spiral structure of the storm, is unique to hurricanes. Here, winds are light and skies are clear or partly cloudy. This calm is very deceptive, as it is bordered by maximum force winds and torrential rains. Many persons have been injured or killed when the calm eye lured them out of shelter, only to be caught in the maximum winds at the far side of the eye, where the winds blow from a direction opposite to that in the leading half of the hurricane.

Hurricanes are especially dangerous storms because they combine the TRIPLE THREAT of VIOLENT WINDS, TORRENTIAL RAINS, and abnormally HIGH WAVES AND STORM SURGE. Each of these factors alone can pose a serious threat to life and property. Taken together they are capable of inflicting a large loss of life and widespread destruction.

HIGH WINDS. Hurricane winds, especially when accelerated by terrain features, can destroy trees, vegetation, crops, as well as dwellings and other structures. Ridge tops and exposed locations downslope from mountains are at greatest risk.

HEAVY RAIN AND FLASH FLOODING. Heavy and prolonged rains can accompany all types of tropical cyclones, including hurricanes, tropical storms, and tropical depressions. Even the weakest tropical depressions can bring torrential rains and flash flooding.

HIGH WAVES AND STORM SURGE. Large ocean swell ahead of the hurricane may reach island shores while the storm is still several hundred miles away. As the hurricane nears the coastline, rapidly rising water levels from above-normal storm tides and high wind-driven waves will inundate coastal areas, erode beaches and pound and undermine waterfront structures and highways.

Hurricane season in Hawaii is from June through November, and it is important to remember that none of our islands are immune to hurricanes. Maui Civil Defense Agency staff often hear comments from members of the public such as "the mountain ranges of the Big Island protect us from hurricanes." This simply isn't true. In comparison to the potential volume of a hurricane (about 50,000 feet to the top of the eyewall and perhaps 400 miles in diameter), the mountains of the Big Island are roughly equivalent to a "speed bump." It is not an issue of if a hurricane will ever impact Maui County, but simply a matter of when one will occur. With this in mind knowledge and preparation are essential.